

1. An implantable fluid management device, comprising:
a catheter having a proximal portion, a distal portion and an outer wall that defines an inner lumen extending between the proximal and distal portions;
a coil-shaped region formed in the distal portion, the coil-shaped region forming a spiral
5 having at least one turn; and
at least one fluid entry port formed on an internal portion of the coil-shaped region, the at least one fluid entry port being in fluid communication with the inner lumen of the catheter.

10 2. The device of claim 1, wherein the inner lumen of the distal portion of the catheter has an outer diameter that is smaller than an outer diameter of the inner lumen of the proximal portion of the catheter.

15 3. The device of claim 1, wherein the coil-shaped region has an outer diameter, measured across the spiral, that is equal to an outer diameter of the proximal portion of the catheter.

4. The device of claim 1, wherein the coil-shaped region has an outer diameter, measured across the spiral, that is not more than four times greater than an outer diameter of the proximal portion of the catheter.

20 5. The device of claim 1, wherein the coil-shaped region has an outer diameter, measured across the spiral, that is less than about ten millimeters.

25 6. The device of claim 1, wherein the length of the spiral formed by the coil-shaped region of the catheter, measured from a first end to a second end thereof, is in the range of about 30 to 100 mm.

7. The device of claim 6, wherein the spiral formed by the coil-shaped region of the catheter has about 1 to 10 turns.

8. The device of claim 1, further comprising a fluid entry port formed at a distal-most end of the distal portion of the catheter and in fluid communication with the inner lumen of the catheter.

9. The device of claim 1, wherein the number of the at least one fluid entry port is in the 5 range of about 1 to 40.

10. The device of claim 1, wherein the shape of the at least one fluid entry port is selected from the group consisting of circular, oval, and a polygon.

10 11. The device of claim 1, wherein the catheter includes a plurality of fluid entry ports, the fluid entry ports having a combination of varying shapes.

12. The device of claim 1, wherein the area of the at least one fluid entry port is in the range of about 0.05 to 1 mm².

15 13. The device of claim 1, wherein the catheter includes a plurality of fluid entry ports, the fluid entry ports having a combination of varying areas.

20 14. The device of claim 1, wherein the coil-shaped portion of the distal portion of the catheter is constructed from a flexible material and application of tensile forces removes the spiral, but the coil having at least one turn is returned upon removal of the tensile forces.

25 15. The device of claim 14, wherein the coil-shaped portion of the catheter is constructed from a flexible material selected from the group consisting of silicone, silicone-like materials, shape memory materials, polyurethane, and barium sulfate loaded polymers.

16. The device of claim 15, wherein at least a portion of distal portion of the catheter is constructed from a shape memory material and exposure to an external stimulus causes the distal portion to form a spiral having at least one turn.

17. The device of claim 15, wherein at least a portion of the outer wall of the distal portion of the catheter contains a shape memory material therein and exposure to an external stimulus causes the distal portion to form a spiral having at least one turn.

5 18. The device of claim 1, wherein the distal portion and the proximal portion of the catheter comprise separate elements of the catheter, the distal portion being coupled to the proximal portion by a technique selected from the group consisting of welding, bonding, molding, adhesively attaching and mechanically mating.

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